# PERFORMANCE WORK STATEMENT Drafting Services Support For Visual Flight Rule (VFR) Aeronautical Charts

## INTRODUCTION

The mission of the Federal Aviation Administration (FAA), Aviation System Standards (AJW-3), National Aeronautical Charting Group (NACG; AJW-35) is to provide charting support to the FAA's National Airspace System (NAS). This charting support provides the basis for civilian and military navigation in the conterminous United States, Alaska, Hawaii, Guam, and the Caribbean-Gulf of Mexico areas. The charts produced by NACG are significant elements in maintaining safety for the NAS. The drafting support of these charts must be very accurate and must be accomplished within a specific time frame to meet critical chart publication dates.

## 1.0 PERFORMANCE WORK STATEMENT

This Performance Work Statement (PWS) describes the work effort required to provide drafting services support to NACG.

1.1. The contractor shall furnish the necessary personnel, material, equipment, and facilities (except as otherwise specified), to provide general drafting support for the preparation of reproduction camera ready copy from compilation instructions and manuscripts for the following:

A. Visual Flight Rules (VFR) Aeronautical Charts—Visual Chart Branch:
U.S. Sectional Aeronautical Charts
Alaska Sectional Aeronautical Charts
World Aeronautical Charts
VFR Helicopter Route Charts
U.S. Gulf Coast Chart

#### 2.0 STANDARDS AND SPECIFICATIONS

The drafting support relative to this procurement must conform to the cartographic standards and specifications published by the Interagency Air Cartographic Committee (IACC), the product specifications, and the "Department of Commerce Type Sample Catalog" for maps and charts.

Copies of applicable specifications are available for inspection—by appointment only—by contacting Mr. Kim Behrns or Ms. Lois Donlin, between the hours of 7:30 a.m. and 3:00 p.m., at (301) 713-2628 x183 or (301) 713-1982 x168. Their offices are located in NOAA's Silver Spring Metro Center (SSMC) Complex, Building #4, on the third floor, 1305 East-West Highway, Silver Spring, Maryland 20910. Applicable specifications are listed in section 7.0.

# 3.0. DEFINITIONS

All definitions in this PWS will be in accordance with those listed in the "Aeronautical Chart User's Guide", 8<sup>th</sup> Edition, January 2008. This document is available for inspection at the above-mentioned address or by purchase from the FAA Distribution Division by calling (800) 638-8972.

# 4.0. ITEMS REQUIRED FOR PERFORMANCE

The Contractor must provide all labor, plant equipment, materials (except materials furnished by the Government as defined) and supervision required to provide the services described in accordance with the specifications and requirements listed herein, including the following:

- A. No less than 100 square feet of office space, including a drafting table and standard drafting lighting equipment, shall be made available to Government inspectors during periodic visits to the contractor's facility for the term of the contract.
- B. Tailored type and symbology. Such type and symbology is defined as all proper names, specific radio frequencies, data listings, etc., which would be unique to each individual chart.
- C. Positive wax-backed stripper film of standard type and symbology (negatives furnished by the Government). Standard type and symbology are defined as all airway designators, range areas, mileages, bearings, credit notes, etc., which would be standard for each individual chart.
- D. Stable base film. Dimensional stability characteristics shall be equal to or better than vinyl chloride acetate plastic sheeting .007 inch thick.
- E. The Contractor must furnish two copies of all type utilized during the drafting process for each chart. The type, which must be separated by chart identification on positive wax-backed stripper film, shall be enclosed with the updated drawings for the first and subsequent deliveries. If type is missing or incorrect, the government may send a type order, via facsimile or e-mail transmission, to the contractor. Once the type order is sent, the contractor must deliver the requested type to the government facility within 24 hours.

## 5.0. SPECIFIC TASKS

## A. Types of Charts

The Contractor will be required to perform drafting on a variety of distinctly different types of charts. Examples of each type chart are listed in section 8.0. A complete set of these charts is available for inspection by contacting Mr. Kim Behrns or Ms. Lois Donlin, between the hours of 7:30 a.m. and 3:00 p.m., at (301) 713-2628 x183 or (301) 713-1982 x168. Their offices are located in the Silver Spring Metro Center (SSMC) Complex, Building #4, on the third floor, 1305 East-West Highway, Silver Spring, Maryland 20910. Additionally, all of these charts may be purchased from the FAA Distribution Division by calling (800) 638-8972. Each chart has a critical delivery schedule which the contractor must meet. See section 10.0 for delivery schedules. All material generated under this contract shall remain the property of the Government. Upon completion of the contract, the Contractor shall return all materials furnished by the Government and all material generated under this contract, including completed work and work in progress to NACO.

#### B. Supervision

The Contractor must maintain an established and continuous drafting services support capability and an organization for technical, administrative, and financial control.

## C. Personnel Qualifications

The Contractor must maintain a work force capable of achieving the quality level of drafting support as specified by NACG. Key supervisory and production supervisory personnel must possess a thorough understanding of the terminology and communication methods (compilation instructions) used by NACG compilers and reviewers in order to ensure that chart changes and corrections are correctly executed.

#### 6.0. SCOPE OF WORK

6.1. Requirements for General Drafting Support - The contractor shall provide general drafting for the preparation of reproduction camera-ready copy from compilation instructions and manuscripts for the charts listed in section 1.1. Requirements for chart revisions are cyclic per year. Initially, approximately 65 charts are estimated annually. The individual types and associated quantity are defined in the contract per line item. It is mandatory that the Contractor complies with the chart specifications listed in section 7.0 and the following general instructions:

- A. Instructions concerning chart revisions will be indicated on the compilation manuscript by way of drawn "leaders". The leaders describe the required change and designate the location where the revision is to be made. Compilation manuscripts for annotated charts and supplemental materials and instructions must not be changed, marked, or mutilated. Compilation instructions on revision correction copies (drafting standards) must be initialed unobtrusively to identity completion of work. Under <u>no</u> circumstances will changes be made to the furnished documents other than those clearly contained in the instructions. If type is inadvertently damaged during the revision process, the contractor shall be responsible to replace the type. The type replaced must be circled and annotated by a green pencil leader on the compilation manuscript. If the Contractor requires clarification of any instruction, the Contractor shall contact the COTR or the VCB Representative.
- B. The corrected positive plates must be of the highest quality suitable for making lithographic press plates and usable for continued maintenance thereafter as prescribed by specifications listed in section 7.0.
- C. The Contractor shall ensure that all positive plates have been cleaned on both sides of excess wax and dirt. Air bubbles, due to burnishing stripper film, must be removed.
- D. Type and symbols must be a dense opaque black color on stripper film and shall be applied without the use of glue, cellophane tape, etc.
- E. When negative engraving is required, the scribing must be clean and exactly at the desired line weight.
- F. All positive plates and drawings must be assembled with their respective compilation materials and instructions in individual packets for delivery and acceptance.
- G. All type interfacing shall be achieved using a typesetter that is capable of interfacing. For clarification purposes, type interfacing is a mixing of more than one type style and size onto a single piece of photographic stripper. The interfacing of text, e.g. notes, primary airport and NAVAID information, etc., is a very important requirement on our aeronautical charts and related products.
- 6.2. <u>Contractor's Edit and Government Review</u> The contractor shall perform a detailed edit of all of the work described in 6.1. in accordance with the following:
  - A. The contractor shall be responsible for all work and must correct all errors, including those found by the Government. Editing and corrections shall not constitute grounds for altering delivery schedules.
  - B. The Contractor shall use a systematic method of quality assurance. Each time the Government submits original and/or updates to existing jobs the contractor must use this method of quality assurance. The Contractor's quality assurance method and procedures must be available for inspection by the Government upon request.
- 6.3 <u>Requirements for Particular Chart Types</u> In addition to the requirements applicable to all charts, the following requirements apply to particular charts or groups of charts:
  - A. Sectional Aeronautical, World Aeronautical, VFR Helicopter Route, and U.S. Gulf Coast Aeronautical Charts have the following special requirements:
    - All revisions shall be made on Government furnished stable base positives not to exceed 42" x 60" x .007" in size.
    - 2. Each color separation positive plate shall be in complete registration with the projection when applying changes and corrections.
    - 3. Plotted positions or new additions shall require registration to the nearest projection ticks of the compilation manuscript and to the corresponding ticks of the positive projection, holding to the minute degree registration exactly.

- 4. Data (i.e., figures, type, symbols, lines, etc.) that appear on the manuscript must remain in the same relative position when changes are being made on the positive plates. The data feature being changed will be aligned directly over image. The projection is ignored unless the position has been re-plotted to a new location on the chart.
- 5. The contractor shall not alter or remove the registration holes punched in the films or alter any registration holes on the placement manuscripts, plots, stable base clear (SBC) film mylars, etc.
- 6. An estimate for magnitude of revisions is displayed in section 9.0. That estimate is based on record of past revision levels and is offered for informational purposes only and not as a provision of exact requirement or obligation.

## 7.0. LIST OF CHART SPECIFICATIONS

The Government reserves the right to revise the references/specifications provided below All references may be inspected at the Silver Spring Metro Complex (see 2.0. for address).

- A. IACC-2; United States Government Specifications, Sectional Aeronautical/Tactical Pilotage/VFR Terminal Area Charts, Fourth Edition, dated July 1986, with amendments through change #7, dated May 1997.
- B. IACC-3 United States Government Specifications, World Aeronautical Charts, Operational Navigational Charts, Second Edition, dated July 1986 with amendments through change #6, dated December 1998.
- C. IACC-15; United States Government Specifications for Helicopter Route Charts, Second Edition, dated September 1993, with amendments through change #3, dated December 1998.
- D. U.S. Department of Commerce NOAA/NOS Type Sample Catalog for Maps and Charts, dated 1993.

#### 8.0 LIST OF AERONAUTICAL CHARTS AND ASSOCIATED PLATES

Examples of the VFR charts listed below are available for inspection at the VCB Office of NACG located at SSMC-4, 1305 East-West Highway, Silver Spring, Maryland.

The charts in the following subsections use, as a primary document (standard), the latest revision of the appropriate published chart. The drafting for the charts is done on a series of plates (SBC vinyl chloride acetate plastic sheeting - .007 inch thick). Below is a list of the possible plates, by chart type, utilized for the drafting support.

#### A. VISUAL CHART BRANCH - ROOM 3409

# SECTIONAL AND GULF COAST CHARTS

- Solid Blue
- Blue Screen
- Solid Magenta
- Magenta Screen
- Solid black
- Black Screen
- Projection

#### WORLD AERONAUTICAL CHARTS

- Solid Blue
- Blue Screen
- Solid Magenta
- Magenta Screen
- Projection

#### HELICOPTER ROUTE CHARTS

- Solid Black
- Black Screen
- Solid Brown
- Brown Screen
- Solid Blue
- Blue Screen

## 9.0 ESTIMATED NUMBER OF CHART CHANGES

The following is an estimate of the average number of changes called for per chart per revision cycle. The revision cycle is defined as the time required for an existing chart to be updated, printed and distributed. The Government is in no way restricted to the estimated number of changes per chart.

# A. VFR CHARTS (revision cycle ranges from 6 months to 2 years)

Alaska Sectional Aeronautical	200
U.S. Sectional Aeronautical	300
World Aeronautical (including Mexico)	800
U.S. Gulf Coast	500
Helicopter Route (no set revision cycle)	300

# 10.0 REQUIRED PICKUP AND DELIVERY SCHEDULE

The following is the pick-up and delivery schedule and pick-up and delivery instructions for each respective chart branch (for the base year).

# VISUAL CHART BRANCH PICKUP/DELIVERY SCHEDULE

Pickup and Delivery 10:30 a.m. SSMC-4, Station 3422

# Sectional and Helicopter Route Charts

	First Shipment		Update Shipment	
	Thursday(77)	Friday(62)	Tuesday(51)	Monday(45)
Chart Eff Date	<u>Pickup</u>	<u>Delivery</u>	<u>Pickup</u>	<u>Delivery</u>
03/12/09	12/24/08*	01/09/09	01/20/09	01/26/09
04/09/09	01/22/09	02/06/09	02/17/09	02/23/09
05/07/09	02/19/09	03/06/09	03/17/09	03/23/09
06/04/09	03/19/09	04/03/09	04/14/09	04/20/09
07/02/09	04/16/09	05/01/09	05/12/09	05/18/09
07/30/09	05/14/09	05/29/09	06/09/09	06/15/09
08/27/09	06/11/09	06/26/09	07/07/09	07/13/09
09/24/09	07/09/09	07/24/09	08/04/09	08/10/09
10/22/09	08/06/09	08/21/09	09/01/09	09/08/09*
11/19/09	09/03/09	09/18/09	09/29/09	10/05/09
12/17/09	10/01/09	10/16/09	10/27/09	11/02/09
01/14/10	10/29/09	11/13/09	11/24/09	11/30/09
02/11/10	11/25/09*	12/11/09	12/22/09	12/28/09

# World Aeronautical Charts (WACs)

	First Shipmen	First Shipment		Update Shipment		
	Friday(118)	Thursday(77)	Tuesday(58)	Monday(45)		
Chart Eff Date	<u>Pickup</u>	<u>Delivery</u>	<u>Pickup</u>	<u>Delivery</u>		
04/09/09	12/19/08	01/22/09	02/10/09	02/23/09		
05/07/09	01/16/09	02/19/09	03/10/09	03/23/09		
06/04/09	02/13/09	03/19/09	04/07/09	04/20/09		
07/02/09	03/13/09	04/16/09	05/05/09	05/18/09		
07/30/09	04/10/09	05/14/09	06/02/09	06/15/09		
08/27/09	05/08/09	06/11/09	06/30/09	07/13/09		
09/24/09	06/05/09	07/09/09	07/28/09	08/10/09		
10/22/09	07/02/09*	08/06/09	08/25/09	09/07/09		
11/19/09	No WACS Sc	No WACS Scheduled For This Effective Date				
12/17/09	08/28/09	10/01/09	10/20/09	11/02/09		
01/14/10	09/25/09	10/29/09	11/17/09	11/30/09		
02/11/10	10/23/09	11/25/09*	12/15/09	12/28/09		
03/11/10	11/20/09	12/24/09	01/12/10	01/25/10		

<sup>\*</sup>Adjusted. If a pickup or delivery falls on a holiday, the pickup or delivery will be adjusted to the day before or the day after, depending on the circumstance.

<u>NOTE</u>: If a scheduled pickup is <u>not</u> required, the Branch Representative must notify the contractor one (1) working day prior to the scheduled pickup date.

# 11.0 REQUIRED PICKUP AND DELIVERY SCHEDULE - OPTION YEARS

Pick-up and delivery schedules for option years shall be furnished to the Contractor at time of exercise of an option year. These schedules shall be based on the same respective numbers of pick-ups, deliveries and frequency of occurrence listed in the base year.